



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,720	02/06/2002	John R. Miller	WHB-31571	8647
22202	7590	01/14/2004	EXAMINER	
WHYTE HIRSCHBOECK DUDEK S C			FEGGINS, KRISTAL J	
555 EAST WELLS STREET			ART UNIT	
SUITE 1900			PAPER NUMBER	
MILWAUKEE, WI 53202			2861	

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,720

Applicant(s)

MILLER, JOHN R.

Examiner

K. Feggins

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4 Nov 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-29 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Wiklof et al. (US 5,625,399).

Wiklof et al disclose the following claimed limitations:

* regarding claim 1, a method of processing a thermal element group to create a printed image (Abstract);

* providing printing parameters for a supply (col 7, lns 31-54, col 10, lns 11-20);

* selecting a plurality of thermal elements to make up a selected thermal element group (col 9, lines 34-49);

* determining a dot history pattern, the dot history pattern based on the selected thermal element group made up of the plurality of thermal elements (col 9, lines 34-49, col 10, line 33-col 11, line 42, figs , 6, 10 & 11);

* determining a thermal element number (col 9, lines 34-49, col 10, line 33-col 11, line 42, figs , 6, 10 & 11);

* generating a packed table, the packed table comprising values based on the supply printing parameters, selected thermal element group, the dot history pattern, and

Art Unit: 2861

the thermal element number (col 6, lines 27-44, col 8, line 22-col 9, line 10, col 10, line 33-col 11, line 42, figs 6, 10,11);

* storing the packed table in a printer memory for use in crating a printed image (col 6, lines 27-44, col 8, line 22-col 9, line 10, col 10, line 33-col 11, line 42, figs 6, 10,11);

Allowable Subject Matter

3. Claims 13-29 are allowed.

Claims 2-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The primary reason for allowance of claims 13-22 is the inclusion of the method step of processing a thermal element group to create a printed image that includes creating a packed index having a packed index length, the packed index length based on the packed thermal element number, and determining packed index values to occupy the packed index length, the packed index values based on the packed dot history pattern; dividing microstrokes, the microstrokes based on the microstroke number stored in the printer memory, such that divided microstrokes are produced; assigning packed binary pulse numbers to the divided microstrokes based on a strobe pattern, the packed binary pulse numbers corresponding to each of the packed index values occupying the packed index length; and determining packed strobe numbers based on the packed binary pulse numbers, the packed strobe numbers corresponding to each of the packed index values

Art Unit: 2861

occupying the packed index length, wherein the printed image is created by using a bit map pattern, the packed dot history pattern, the packed index values, the packed strobe numbers, and the microstrobe energy values. It is these steps found in each of eh claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable.

The primary reason for allowance of claims 23-29 is the inclusion of the method step of processing a thermal element group to create a printed image that includes creating a packed index having a packed index length, the packed index length based on the packed thermal element number, and determining packed index values to occupy the packed index length, the packed index values based on the packed dot history pattern; dividing microstrokes, the microstrokes based on the microstrobe number stored in the printer memory, such that divided microstrokes are produced; assigning packed binary pulse numbers to the divided microstrokes based on a strobe pattern, the packed binary pulse numbers corresponding to each of the packed index values occupying the packed index length; determining packed strobe numbers based on the packed binary pulse numbers, the packed strobe numbers corresponding to each of the packed index values occupying the packed index length, until an entire raster line of packed strobe numbers is ascertained, wherein the printed image is created by using a bit map pattern, the packed dot history pattern, the packed index values, the entire raster lines of the packed strobe numbers, and the microstrobe energy values. It is these steps found in each of eh claims, as they are claimed in the combination of, which

Art Unit: 2861

has not been found, taught or suggested by the prior art of record that makes these claims allowable.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Spano (US 6404452 B1) disclose an auxiliary control device for managing printing in a thermal printer. Yamamoto et al. (US 5038154) disclose driving an apparatus in accordance with the heating element energization patterns.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

4. Applicant's arguments filed 4 Nov 2003 have been fully considered but they are not persuasive. With regards to the Applicant's argument that Wiklof does not disclose selecting a plurality of thermal elements to make up a thermal element group and determining a dot history pattern and the dot history pattern based on the selected thermal element group made up of the plurality of thermal elements is acknowledged. However, Wiklof discloses selecting a plurality of thermal elements to make up a thermal element group and determining a dot history pattern and the dot history pattern based on the selected thermal element group made up of the plurality of thermal elements. Wiklof discloses an array of elements used for printing an area where the history and future activity of the array is considered to produce printed images (col 9, lines 34-67, fig 5a).


Art Unit: 2861

Communication With The USPTO

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 703-306-4548. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 703-308-4896. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


K. Feggins
January 7, 2003